UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

Upper Level UBC Students Engagement and Awareness of Move UBC

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Group 2, Project 3

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Executive Summary:

Participation in regular physical activity is essential toward achieving positive health outcomes through its many benefits such as resistance to disease, better memory and attention, stress reduction, improved mental health, and enhanced cardiovascular health (Sukys et al., 2019). However, research has shown that upper-level university students in their final years of study are not achieving the recommended levels of daily physical activity for their age group (Driskell, Kim, & Goebel, 2005). Additionally, the nature of post-secondary education generally promotes a sedentary lifestyle for many students (University of British Columbia, 2017). This is worrisome because sedentary behaviours can lead to adverse health outcomes such as cardiovascular disease and osteoporosis (Lurati, 2018). One way that the University of British Columbia (UBC) is addressing these physical activity needs is through health promoting initiatives such as *Move UBC*. The *Move UBC* Campaign is an annual university-wide initiative that seeks to increase physical activity and reduce the amount of time students, staff, and other members of the UBC community spend sitting (Move UBC, 2020).

The purpose of this project was to examine whether upper year UBC students are aware of *Move UBC*, whether they feel there is enough opportunity to participate in *Move UBC* events, and to discover what they think the key messaging of the *Move UBC* campaign is. Through this research, this project sought to discover how effective the *Move UBC* Campaign is toward promoting health and wellness in upper-year UBC students.

This project used Qualtrics, a secure online survey platform to collect both qualitative and quantitative data over a three week period ranging from February 24 to March 12, 2020. Qualitative data was analyzed through patterns found in open-ended questions, and quantitative data was analyzed through Likert scales, yes-no questions, and multiple choice questions. The survey was distributed through various social media platforms including Facebook, Instagram, and Twitter.

Through this research it was discovered that the majority of upper-level students were aware of *Move UBC*. However, very few of these students had participated in a *Move UBC* event, suggesting that the campaign needs to find ways to encourage greater participation in upper-level students rather than work to raise their awareness. Additionally, it was discovered that students who were already achieving the recommended 150 minutes of physical activity per week found ways to be physically active during the time between classes through means outside of *Move UBC*. This demonstrates how the campaign has an opportunity to increase participation in their events through additional programming between classes.

Based on this research, this project has developed 4 recommendations for *Move UBC* to consider that may address upper level student participation and awareness in the campaign: (1) introduce online physical activity resources, (2) utilize social media to increase engagement, (3) scheduling events to accommodate upper-level student schedules, and (4) ideas for follow-up studies for long-term development.

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Introduction and Literature Review

The University of British Columbia's (UBC) *Action Framework to Increase Physical Activity and Reduce Sedentary Behaviour* states that being a university student promotes a sedentary lifestyle with activities such as sitting in lectures, doing readings, and working on the computer taking up the majority of student time. As a result, students have limited opportunities to be physically active (UBC, 2017). Post secondary institutes need to understand the factors affecting their students in order to develop effective programs and form thriving communities. To understand these factors, it is important to first define health.

According to the World Health Organization (2006), health is defined as a "state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity" (p .1). This definition encompasses a modern day approach to health that takes into account several factors that affect overall health and well-being. Our health is not defined by one single factor, but rather multiple factors such as food, shelter, education, sustainable resources, etc. (World Health Organization, 2006). The following literature review will focus on physical health and well-being as this is the target of *Move UBC,* the initiative investigated in this project.

The benefits of regular physical activity for students include improvements in mental health, resistance to disease, improved memory and attention, resistance to stress, and enhanced aerobic fitness (Sukys et al., 2019). As a result, health promotion through the facilitation of regular participation in physical activity may be an effective method to achieve positive health outcomes. It should be the responsibility and goal of post secondary institutions to facilitate health promotion within their community in a meaningful way that encourages physical activity and overall well-being (Okanagan Charter, 2015).

A sedentary lifestyle is linked to decreased wellbeing, resulting in students missing classes, having lower academic performances, and lower retention and graduation rates (Henry et al., 2018). In addition, sedentary behaviours are also associated with many health risks. Some of the adverse consequences can include, but are not limited to cardiovascular disease, obesity, feelings of exhaustion, premature aging, osteoporosis, and sleep apnea (Bauman, Chau, Ding, & Bennie, 2013; Lurati, 2018; de Oliveira Diniz, Barreto, de Bruin, & de Bruin, 2016). Considering the sedentary nature of being a university student, it is essential for post-secondary institutions to combat these sedentary behaviours and mitigate the risks of experiencing decreased wellbeing or adverse health outcomes.

The need for health promotion, specifically targeting university students, is necessary as the prevalence of achieving the recommended daily physical activity levels declines rapidly amongst people between 19 to 24 years of age, which is the average age of students enrolled in post-secondary institutions (Plotnikoff et al., 2015). In the United States, it was found that nearly half of all university students were not achieving the daily recommended levels of physical activity for their age group. Similarly, studies conducted in the United Kingdom indicated that 73% of male and 79% of female university students do not meet physical activity guidelines (Plotnikoff et al., 2015).

Upper-level students are at a greater risk of having a sedentary lifestyle and therefore are the demographic of interest for this project. Upper-level or upper year students as defined by Driskell, Kim, and Goebel (2005) refers to students that have third or fourth year credit standing. Upper year students have unique needs and stressors, therefore studies should be conducted with a focus on this cohort. For example, upper-level students have reported greater levels of stress,

anxiety, or depression compared to first or second year students (Beiter et al, 2014). These results are tied to the fact that upper-level students are more likely to live and work off-campus, which limits these students' use of campus programs and facilities. Specifically looking at physical activity levels between these two cohorts, upper year students reported significantly lower durations of walking and aerobic activities with only 28% of the 147 upper-level students surveyed reported walking for 31 minutes daily compared to 45.6% of the 114 lower-level students (Driskell et al., 2005). These findings indicate potential life-long impact as researchers have found that 84.7% of upper-level students who participate regularly in physical activity continued to be physically active 5 to 10 years in the future (Keating, Guan, Piñero, and Bridges, 2005). Correspondingly, 81.3% of upper year's who were physically inactive continued to have a sedentary lifestyle in later life (Keating et al., 2005).

To combat inactive student lifestyles, many post-secondary institutions are utilizing health promotion. Health promotion in universities and colleges is heavily influenced by the Okanagan Charter. Aside from UBC, schools such as McMaster University, Langara College, Mount Royal University, and Queens University have adopted the Charter along with sixteen other post-secondary institutions (Canadian Health Promoting Campuses, n.d.). In the pursuit of greater well-being, particularly focusing on students, this Charter has inspired the creation of wellness programs in these different schools (Okanagan Charter, 2015). Programs such as *Move UBC* have been developed to improve physical health and well-being at UBC. *Move UBC* is a university-wide initiative focused on increasing physical activity and reducing the time that students, staff, and other members of the UBC community spend sitting (Move UBC, 2020). By implementing small changes that allow the community to move more, *Move UBC* aims to

improve both mental and physical health, better academic and professional success, and meaningfully contribute to well-being (Move UBC, 2020).

Move UBC utilizes the *Wellbeing Strategic Framework* which aims to reduce the prevalence of physical inactivity in the UBC community by 10% by 2025 (University of British Columbia, n.d.). The *Wellbeing Strategic Framework*, as part of the UBC's Strategic Plan, envisions UBC as a health-and-wellbeing-promoting university where all people, places and communities can flourish (University of British Columbia, n.d.). This framework is guided by the calls to action outlined in the Okanagan Charter which focuses on long-term aspirations and actions that promote community wellbeing (Okanagan Charter, 2015). *Move UBC* supports this goal by hosting several different events that celebrate the many ways to move more and to continue moving on campus. One of the main focuses of this initiative is *Move UBC* Month where, throughout the month of February, *Move UBC* hosts several types of events targeted at helping the community be more active with activities such as yoga, lunch time drop in gymnastics, well-being walks, tennis workshops, etc. Initiatives throughout the year include in lecture "movement breaks" with the MoveU crew, the "Walkabout Program" - a health and wellbeing challenge promoting regular exercise in social settings that took place for most of second term, and tips to make everyday activities more active (Move UBC, 2020).

The objective of this project is to evaluate the effectiveness of the *Move UBC* initiative on upper-level UBC students and to develop recommendations as to how the initiative can be more effective. *Move UBC* is currently in its fourth year of existence and as such, this project aims to evaluate the awareness of the campaign on campus. The questions this project seeks to answer include whether upper year students at UBC are aware of *Move UBC*, whether they feel

there is enough opportunity to engage with it, and what they think the key messaging is for *Move UBC*.

Methods

For this study an 18 question survey was conducted using Qualtrics, a secure online survey platform that enables the mass distribution of surveys to UBC students. Participants consisted of 55 upper-level UBC students. The survey consisted of both quantitative and qualitative questions. Quantitative questions used included Likert scales, yes and no questions, and multiple choice questions. For example, a multiple choice style question was used to collect information regarding the participants year of study. Qualitative questions required participants to reply with short answer responses. This was done to collect more individualized answers about participant experiences with *Move UBC*. For example, one of the qualitative questions used a short answer field to collect information on the participants by asking them, “What do you know about *Move UBC*?” (see *Appendix A* for survey questions).

The survey also consisted of multiple pathways that participants would be directed to based on their answers to certain questions. The first one being about whether or not the participant lived on campus. When participants answered that they lived off campus, they were promoted to answer follow up questions about their commute time, and hours spent on campus per day. Following this series of questions, participants continued on to the next section of the survey regarding their physical activity levels. Furthermore, participants who indicated they lived on campus immediately continued on to the questions regarding physical activity levels. The next pathway in the survey was based on the students' knowledge of *Move UBC.* Participants were asked whether or not they had heard of *Move UBC.* Participants who answered

yes were promoted to answer questions about their knowledge of *Move UBC*, and whether or not they had participated in a *Move UBC* event. Furthermore, if they had participated in a *Move UBC* event they were asked to indicate which one(s). Participants that indicated they had not heard of *Move UBC* were given a brief description of the program and then asked a follow-up question about whether they would participate in a *Move UBC* event given the new information.

The survey was distributed to UBC students using multiple social media platforms including, but not limited to Facebook, Instagram, and Twitter. Data was collected over a three week period (February 24 to March 12, 2020), and on average took five minutes to complete. This time period was selected to allow data collection to occur during the main campaigning initiative - *Move UBC* Month, and the time following the end of the campaign.

For inclusion criteria, participants had to be current third and fourth year standing undergraduate students at UBC. All other responses were excluded during data analysis. Furthermore, the survey did not collect any personal contact information and participants remained anonymous. All participants were presented with a consent form and detailed information regarding the intent of the survey upon opening the survey link. Any participants that wished to withdraw their consent were able to exit out of the survey at any time.

For this project a mixed methods design was used to acquire multiple levels of responses and insights from the participants. These findings were then used to analyze statistics and explore any emerging themes. The objective of this data collection was to analyze the participants' physical activity levels, any barriers associated with physical activity, and the awareness and effectiveness of the *Move UBC* campaign.

Results

There were a total of 67 participants who either partially or fully completed the survey. Of those, three respondents were lower-level, five respondents did not disclose their year, and four were in graduate programs. These respondents did not meet our inclusion criteria of upper-level students and therefore these responses were not included in results analyses, leaving a total of 55 upper-level students who participated. Within this cohort 11 participants (20%), at the time of the survey, had third-year standing; 29 (52.7%) were fourth year standing; and 15 (27.3%) were in their fifth or sixth year of their undergrad programs (see Figure 1, Appendix B). Out of the 55 valid responses, 44 (80%) fully completed the survey and 11 (20%) made progress, but did not fully complete the survey. Those who did not fully complete the survey were within the range of 75-95% completion, with one person only completing 20% of the survey.

Six (10.9%) of participants live on campus, 49 (89.1%) do not live on campus, and six (10.9%) did not answer the question. The average commute for those that live off campus was 58.7 minutes or one hour one-way with a range of 15 - 120 minutes. For those who answered with a range of times, the mean of that range was used to calculate the average commute time. Those who commuted to campus spent on average 6.4 hours on campus with a range of 2 - 26.5 hours. Again, for those that answered with a range, the mean of that range was used to calculate the average time spent on campus.

When asked how physically active per week participants were, one participant selected “none.”Ten (18.2%) of the participants were physically active between 30-60 minutes per week, ten (18.2%) were active between 60-90 minutes per week, eight were active for 90-120 minutes per week, seven (12.7%) were active between 120-150 minute, and 17 (30.9%) were active for

150 minutes or more per week. Two (3.6%) did not answer the question (see Figure 2, Appendix B).

The majority of participants felt that their physical activity level had changed, with only five (9.1%) saying their levels stayed relatively the same. Thirty-four (61.8%) said their physical activity levels had decreased due to an increase in workload and commute times. Twelve (21.8%) said their physical activity levels had increased due to their improved knowledge about physical activity and/or adopting fitness as a coping strategy for stress. Two (3.6%) stated a change in activity levels, but did not state in which direction. Two (3.6%) did not answer the question.

These following set of questions were asked on a Likert scale. When asked, "How important is physical activity to your overall health?" 34 (61.8%) said extremely important, 18 (32.7%) said very important, one (1.8%) said slightly important, and two (3.6%) did not answer the question. When asked about motivation levels, nine (16.4%) said they were extremely motivated, 15 (27.3%) said they were very motivated, eight (14.5%) said they were slightly motivated, 19 (34.5%) said they were moderately motivated, two (3.6%) said they were not at all motivated, and two (3.6%) did not answer the question. When participants were asked how likely they were to attend an event on campus, five (9.1%) were extremely likely, 14 (25.5%) were moderately likely, 12 (21.8%) were slightly likely, eight (14.5%) were neither likely or unlikely, 14 (25.5%) were slightly unlikely, and two (3.6%) did not answer the question.

When asked what activities participants did between classes, the most common responses fell within four categories. Fifteen (27.3%) said a combination of studying and eating, six (10.1%) said they did nothing or left campus, 15 (27.3%) said they were physically active and

went to work out or participated in activities such as intramurals, soulcycle, dance or went to the gym. Five (9.1%) said they meet up with friends and socialize in combination with studying, and 14 (25.5%) did not answer the question.

Participants were asked which day or days of the week they were the least busy. Fifty-two (94.5%) respondents answered the question. The day participants were most free was Friday, with it being mentioned 33 times, followed by Monday which was mentioned 17 times. Wednesday and Thursday were both mentioned 15 times, and Tuesday was the busiest day of the week with 11 mentions.

Out of 55 people, 42 (76.4%) had heard about *Move UBC*, 12 (21.8%) had not, and one (1.8%) did not answer the question (see Figure 3, Appendix B). Participants who answered "yes" were then asked what they knew about *Move UBC*. Thirty-three (60%) participants understood that *Move UBC* is an initiative that "encourag[es] students to move more." However, there were approximately nine (16.4%) students who had heard of *Move UBC* through social media and flyers around campus, but did not understand the goals; they simply knew "that it exists." Some of those 9 participants thought that *Move UBC* was UBC Recreation's free week or that *Move UBC* was only limited to *Move UBC* month.

Of the 42 that had heard of *Move UBC*, 14 (33.3%) had participated in a *Move UBC* event and 28 (66.7%) had not. The types of events attended by those 14 respondents included collaborations with other programs. Two participants had attended free dance classes hosted by UBC Dance Club, four attended yoga event(s) hosted by UBC Yoga Club, UBC Recreation hosted a free skate session and free gym day with one attendant each, and three had participated in a *Move UBC* in-class movement break. Lastly, three had attended a *Move UBC* key event such

as *Move UBC* month's Kickoff Walk, or the closing event - the Cha Cha Slide. For those 28 who had not attended an event, they were asked, "What is keeping you from attending a *Move UBC* event?" and two did not respond. Of the 26 who did respond, 10 (38.5%) said they had scheduling conflicts which prevented them from participating in events. Four (15.4%) specifically stated commute times as a deterrent to staying on campus to participate in events. Seven (26.9%) people had never heard of *Move UBC*, two (7.7%) did not know where to find information or the event schedule, and one said, "[The person] working at SRC [meaning the student recreation center] didn't know about it last time I asked." Lastly, three (11.5%) said they did not have friends to attend events with or lacked interest in the events (see Figure 4, Appendix B).

When asked, "In your experience, has UBC supported your health and physical activity goals?" 25 (45.5%) said yes, 17 (30.9%) said no, eight (14.5%) were indifferent or had mixed feelings, and five (9.1%) did not answer the question. The main reason participants answered "yes" was because they were already engaged in a variety of activities such as intramurals, sport teams, walking to class, and had cheap gym access. The people who answered "no" either considered the cost of the gym facilities to be a barrier, the business of the gym to be a deterrent, or their workload occupying too much of their time. One participant said, "This campus is not at all commuter friendly. Everything revolves on campus and it is not usually feasible for people who don't live here to participate." Those who were indifferent felt that they knew of events and places to be physically active, but felt there were not enough healthy eating options available or were not interested in the events they saw or attended.

The 12 participants who had not heard about *Move UBC* received a brief description about what *Move UBC* does, and were then asked how likely they were to attend an event. Two (16.7%) said they were extremely likely, seven (58.3%) said somewhat likely, two (16.7%) said neither likely or unlikely, and one (8.3%) said somewhat unlikely.

Discussion

There are several key findings that may support the objectives of this project. *Move UBC* has been successful in becoming a recognized name among students as indicated by the 76.4% participants saying they had heard of *Move UBC* (see Figure 3, Appendix B). Furthermore, 79% of those students also indicated that they understood the campaign's messaging and purpose. However, the level of understanding varied and was not always correct. Some of the correct messaging and information expressed from participants included, "They promote fitness," "They promote physical activity in a fun way and put on fun free easy events for students on campus," and, "It's an initiative that encourages students to be active." Several participants were able to correctly indicate the goal of the *Move UBC* campaign. However, some participants still had misinformation about the initiative. For example, *Move UBC* was identified as a "Week where you can try out fitness things for free," confusing the campaign with UBC Recreations' free week. Some participants also indicated that they were aware of *Move UBC* from on campus advertisements such as banners, signs, and posters. While several participants correctly explained aspects of *Move UBC,* the majority focused on *Move UBC* month. This may be the result of *Move UBCs'* higher presence on campus during this campaign, which coincided with this project's data collection. As a result, participants may be associating *Move UBC* with only this

campaign. Indicating a greater focus needed towards promoting their year-round initiatives to increase physical activity on campus beyond the month of February.

Of the 76.4% participants who had heard about *Move UBC*, only 33.3% had attended a *Move UBC* event (see Figure 5, Appendix B). However, 61.8% of participants said physical activity is extremely important, and another 32.7% responded that it is very important to them. If upper-level university students say that physical activity is important to their overall health, what is hindering them from attending these events? The results indicate that a lack of awareness of the *Move UBC* campaign is not the barrier. However, there were several reasons indicated by participants as to why they had not attended an event such as scheduling conflicts, commute times, lack of interest, no one to go with, and not knowing where to find the schedule (see Figure 4, Appendix B). This data can be used to help direct future *Move UBC* messaging and events on campus. Overall, these findings suggest that increased efforts need to be made to improve upper-level student engagement in *Move UBC* activities and events.

To further examine how students are interacting with *Move UBC*, it is beneficial to compare students who were hitting the daily physical activity recommendations as suggested by the World Health Organization (2006) with those who were not. Additionally, to find out how participants were interacting with facilities on campus, it is beneficial to compare commute time, activities done on breaks, and whether or not there are differences in the cohort attending *Move UBC* events. Of the 24 participants who achieved 120-150+ minutes of physical activity per week, their average commute time was 56 minutes, and they spent on average 6.45 hours on campus, both of which are close to the overall averages stated in the results section. Those that answered what they did on campus during their breaks said they did some form of physical

activity or socialized, and only four people said they studied and did not list a form of physical activity. Additionally,18 participants in this cohort had heard about *Move UBC* but only five have attended a *Move UBC* event. These relationships show that students who get the recommended daily physical activity per week are doing so despite having long commute times as they utilize their break times between classes to be physically active, although not specifically with *Move UBC*. Some of the activities identified by the participants include going on walks, going to the student gym, or participating in intramural teams or drop ins. This demonstrates that there is room for *Move UBC* to interact with students meeting the physical activity recommendations by having a number of options throughout the day to accommodate their busy schedules. Subsequently, the 22 participants who exercised for 90 minutes or less were found to have similar commute times and time spent on campus to those hitting the recommended amount of physical activity, with 62 minutes and 6.8 hours respectively. However, all the participants in this category said that they spend their time between classes studying. Only four participants listed going for a walk or a drop-in game as a between class activity in addition to studying. These relationships show that the lack of engagement with *Move UBC* is not due to lack of awareness, but a lack of incorporating events and activities regularly into people's schedules. Additionally, it highlights that the main difference between those getting the recommended daily physical activity and those who are not is how time between classes is utilized.

Limitations

There were several limitations that can be identified in the data collection process that affected the reach of this project. The first factor that limited the reach of the survey was how the

survey was distributed. For this project a limited number of Facebook groups and personal social media pages were used to promote the survey. Another avenue of reach that could have been employed were the connections of our partners at *Move UBC* which could have led to greater distribution of the survey. Additionally, we did not extend our data collection beyond the 3 week period due to the outbreak of COVID-19. Furthermore, due to the timing of the Kinesiology 464 class schedule, data collection was done during midterm season which may have limited the amount of students willing to complete the survey. Better timing would have been at either the beginning or at the end of the term when students tend to have more available time.

Furthermore, Qualtrics was a new tool for our group which limited our ability to maximize our use of the software's features as we did not fully realize the best way to organize the questions. There was some feedback from participants explaining how the formatting of the survey was not showing up properly on mobile phones which could have changed the way participants read or viewed questions. For example, some of the Likert scale questions showed up as multiple-choice questions rather than scales.

Moreover, some of the choice wording of the questions in the survey could have been more concise and specific. The question, "On the days you come to campus, approximately how many hours are you here?" should have specified that the response was per day. Although most of the responses were appropriate, one respondent said they spent 26.5 hours on campus. Additionally, more precise categories should have been used when asking, "How many minutes a week are you physically active?" Within the chosen categories, if one is active for either 90, 120, or 150 minutes a week participants could have fallen within two different categories. Lastly,

the Likert scales were automatically filled in with labels on Qualtrics and those were the labels used, these made choices harder to read and the scales ambiguous. Scales that should have been used to make things clearer are “strongly agree, agree, neutral, disagree and strongly disagree.”

Lastly, no additional demographic data such as gender, age or faculty was asked, which limited any correlations or relationships that could have come up with these data points.

Recommendations

Based on the findings from the research, this project has discovered several areas of improvement to contribute toward increasing its awareness and engagement in upper level the *Move UBC* campaign to UBC students. Consequently, this project has developed four recommendations for *Move UBC* to consider to help them address these areas of improvement: (1) introduce online physical activity resources, (2) utilizing social media to increase engagement with students, (3) adding or rescheduling events to accommodate upper level student schedules, (4) ideas for follow-up studies.

This project believes that *Move UBC* can better achieve their mission of increasing physical activity in the UBC community as a whole - including upper level students - by placing greater emphasis on teaching or providing tips on how people can incorporate movement into their own schedules. The primary factor preventing participants from attending *Move UBC* events was found to be scheduling conflicts (see Figure 4, Appendix B). For many students, they view *Move UBC* as solely about participating in their events to become active. As a result, this project suggests that *Move UBC* can benefit from creating and implementing online activities. For example, an online resource page with short 5-10 minute exercise and movement videos for

community members to utilize during study or work breaks. This project visualizes this tool as being a virtual MoveU Crew that can be utilized anytime and anywhere by students. The UBC Wellbeing website currently has useful information about the importance of physical activity and movement as shown in their *Make your Move* page (Make Your Move, 2020). While the website does list several opportunities to be physically active on campus through different clubs and projects, it lacks a tool for people to utilize directly on the website. There is a section on the *Make your Move* page that has 30-60 second clips of stretching tips, but this is concealed behind a drop down tab and is very easy to miss. This a good start but adding additional videos demonstrating longer or alternative movement activities would be beneficial for increasing physical activity in students. One potential option could be creating a dedicated webpage that focuses on providing exercise videos and educational information that people can access at their own convenience. For example, the website could include a video created by the organizers of the *Yoga Pilates* event that leads users through a typical in-person session. Since the goal of *Move UBC* is to increase physical activity levels in the UBC community, using online resources could help enable individuals to be more active at their own leisure, and will help increase M*ove UBC*'s community engagement.

Through this research, it was discovered that the majority of upper-level students were aware of *Move UBC*. However, only a minority of these students indicated as having participated in a *Move UBC* event, suggesting that the campaign needs to find ways to encourage greater participation in upper-level students rather than work to raise their awareness. As a result, our second recommendation is that *Move UBC* should better utilize social media to promote their initiative, facilitate engagement, and make information more easily accessible. Social media

platforms such as Facebook, Twitter, Instagram, and Youtube can reach a substantial number of people in a short amount of time (Kim, Sung, & Kang, 2014). Especially when looking to target college aged students, digital marketing can be very effective (Kim, Sung, & Kang, 2014). Therefore, *Move UBC* should consider establishing a unique social media presence by creating their own social media accounts under the *Move UBC* brand on Twitter, Instagram, Facebook and other highly active platforms. By adopting social media platforms as a tool to connect with and engage with the UBC community, *Move UBC* can effectively raise upper-level student engagement in their events through a digital medium.

This project's third recommendation is that *Move UBC* should look into scheduling more of their events on the days of the week that students are least busy. This project discovered that upper-level students are predominantly least busy on Fridays, then Mondays, and most busy on Tuesdays (see Figure 6, Appendix B). Examining the *Move UBC* calendar for *Move UBC* Month in February of 2020, there were 15 different *Move UBC* events offered on a Friday and nine events on a Monday. In comparison, there were 15 events offered on a Tuesday, and an overwhelming 27 events offered on a Wednesday (Move UBC, 2020). The day of the week upper level students were least busy (Friday) contained the same number of events as the day of the week upper level students were most busy (Tuesday). Additionally, there may be an over saturation of events occuring on Wednesdays, which is tied for the second busiest day of the week for upper-level students. As a result, *Move UBC* should consider adding or transferring some of their events on Wednesday to Friday or Monday to coincide with the days when upper level students are least busy. Through this, it may be possible for *Move UBC* to increase upper-level UBC student participation in their events.

To further *Move UBC's* goal of increasing physical activity in the UBC community, this project's fourth recommendation suggests that future research should consider collecting additional demographic information on their participants such as gender, age, or faculty in addition to their year of study. Conducting a more comprehensive research on participant demographics will allow researchers to perform greater analysis on potential relations between participants and their engagement and awareness of *Move UBC*. Additionally, since the majority of studies show there is a decrease in physical activity in post-secondary students, it would be beneficial to do a longitudinal study throughout the entirety of students' undergraduate program. This would aid in further identifying any factors specific to UBC students that result in a decrease in physical activity. It would be especially interesting to examine what factors lead some students to increase their physical activity and others to decrease their physical activity. These findings may help *Move UBC* understand the best approaches to encourage the UBC student population to increase their daily physical activity. This may also highlight any changes that occur throughout a student's undergraduate degree. Future studies could also be conducted on students pursuing graduate degrees to understand how *Move UBC* can support the student community beyond undergraduate students.

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Appendix A

What year of study are you currently in at UBC?

- ○ 1st Year
- ○ 2nd Year
- ○ 3rd Year
- ○ 4th Year
- ○ Other:

Do you currently live on campus at UBC ?

- ○ Yes
- ○ No

How long is your commute to campus? (one-way in minutes)

On the days you come to campus, approximately how many hours are you here?

How many minutes a week are you physically active?

- ○ None
- ○ 30-60 minutes
- ○ 60-90 minutes
- ○ 60-90 minutes
- ○ 90-120 minutes
- ○ 120-150 minutes
- ○ more than 150 minutes per week

How have your physical activity levels changed since entering post-secondary?

How important do you feel physical activity is to your overall health?

	Extremely important	Very important	Moderately important	Slightly important	Not at all important
How important do you feel physical activity is to your overall health?	○	○	○	○	○

How motivated are you to be physically active on a regular basis?

	Extremely motivated	Very motivated	Moderately motivated	Slightly motivated	Not at all motivated
How motivated are you to be physically active on a regular basis?	○	○	○	○	○

How likely are you to participate in organized sport or other exercise events on campus?

	Extremely likely	Moderately likely	Slightly likely	Neither likely nor unlikely	Slightly unlikely
How likely are you to participate in organized sport or other exercise events on campus?	○	○	○	○	○

What activities do you do between classes?

During the work week when are you typically least busy?

- ☐ Monday
- ☐ Tuesday
- ☐ Wednesday
- ☐ Thursday
- ☐ Friday

Have you heard of MoveUBC?

- ○ Yes
- ○ No

What do you know about MoveUBC?

Have you participated in a MoveUBC event?

- ○ Yes
- ○ No

Which MoveUBC event(s) did you participate in?

What is keeping you from attending MoveUBC events?

In your experience, has UBC supported your health and physical activity goals? Briefly, explain why or why not?

MoveUBC is a university-wide annual initiative to increase physical activity and reduce the time students, staff, faculty and the UBC community spend sitting. This goal is achieved by partnering with community programs to host physical activity events on campus.

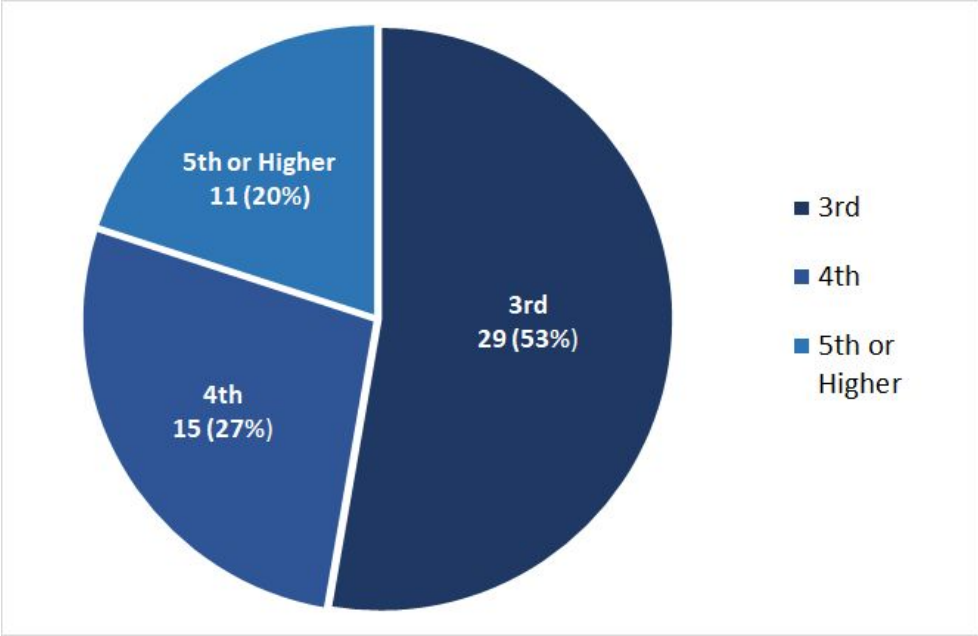
Given this information, how likely are you to participate in a MoveUBC Event?

	Extremely likely	Somewhat likely	Neither likely nor unlikely	Somewhat unlikely	Extremely unlikely
How likely are you to participate in a MoveUBC event?	○	○	○	○	○

Appendix B

Figure 1

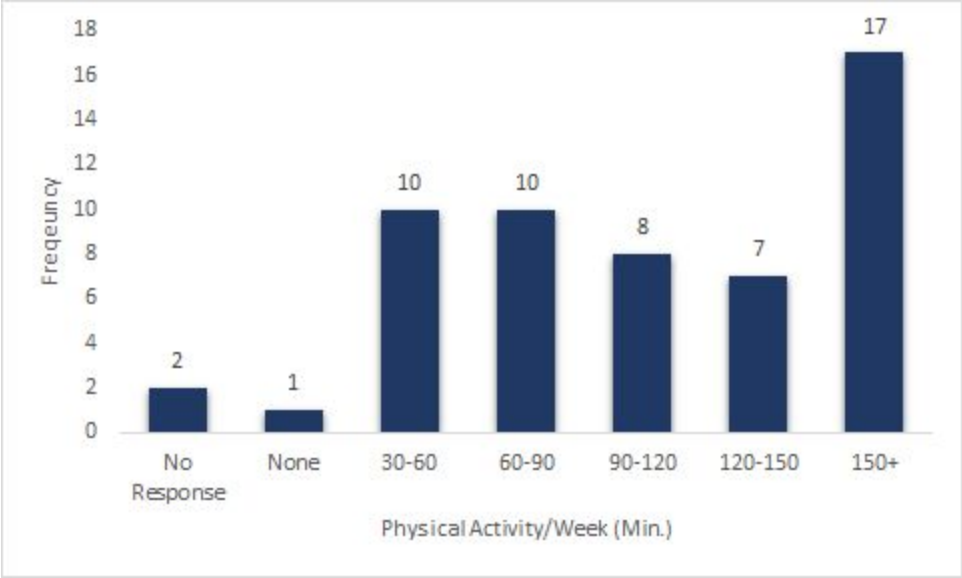
Participant Year of Study



Note: This figure illustrates the number of participants belonging in each year of study.

Figure 2

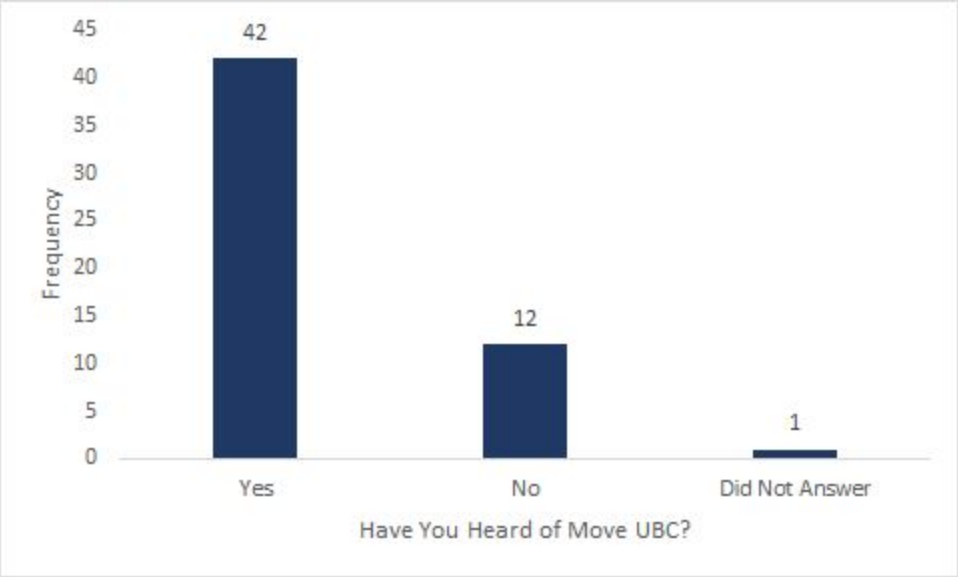
Participant Physical Activity/Week



Note. This figure shows the average amount of physical activity of participants per week. Physical activity per week is expressed in minutes.

Figure 3

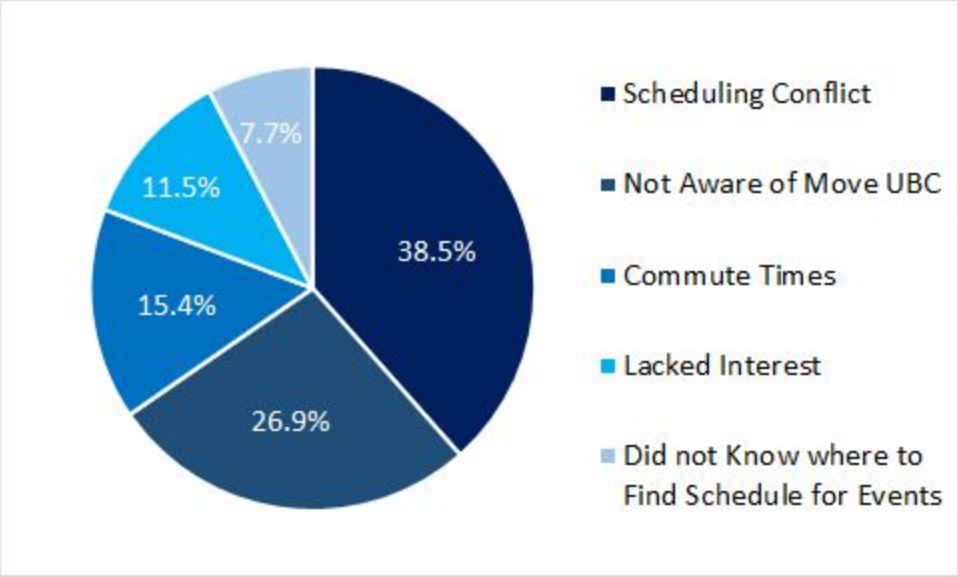
Participant Awareness of Move UBC



Note. This figure shows participant awareness of *Move UBC* by frequency.

Figure 4

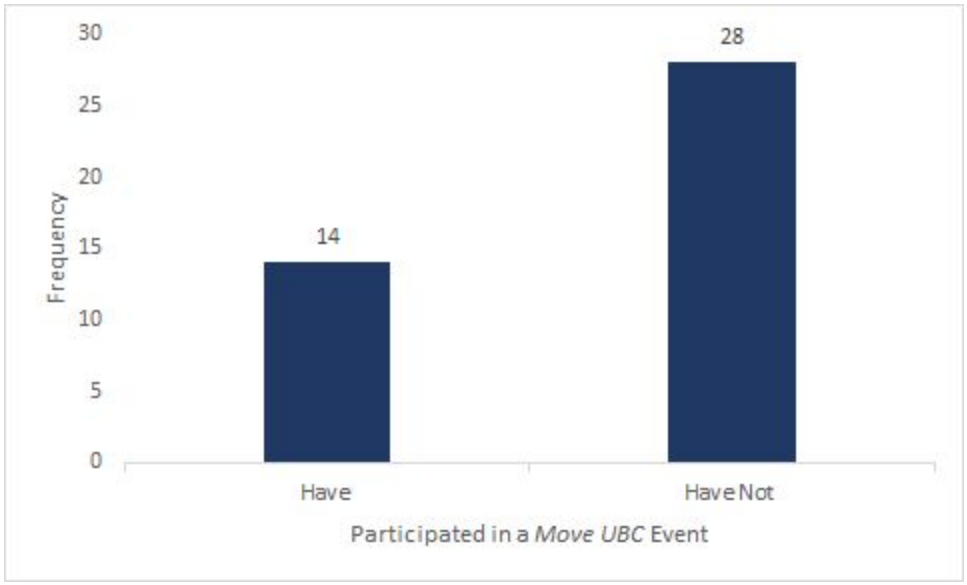
Factors Preventing Participation in Move UBC Events



Note. This figure illustrates the factors preventing participants from attending *Move UBC* events by response percentage. This is solely based on the 26 participants who have never attended a Move UBC event, but have heard of MoveUBC and excludes 2 entries with no response.

Figure 5

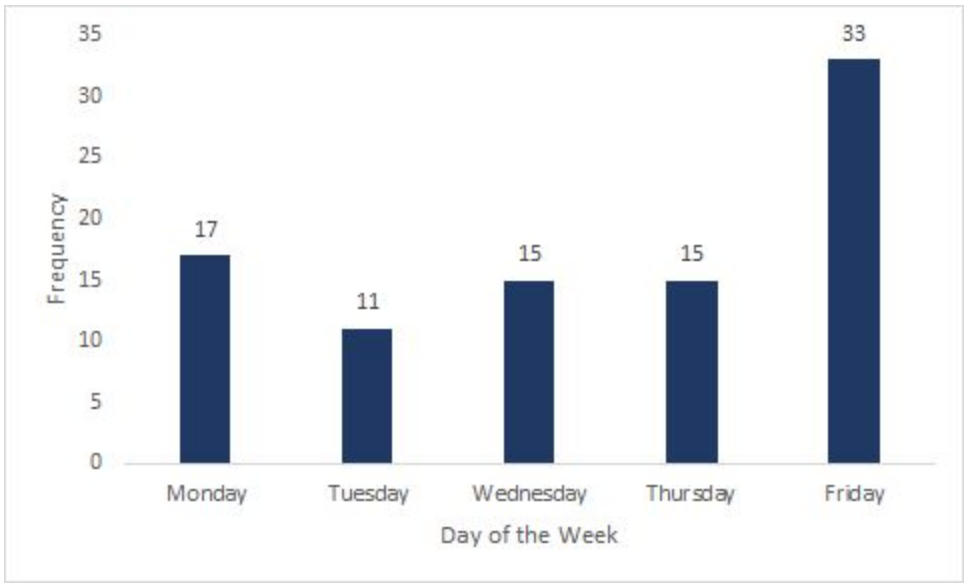
Participation in Move UBC Events



Note. This figure shows the frequency of participants who have or have not participated in a *Move UBC* event. This is out of the 42 participants who had heard of *Move UBC* at the time of their response.

Figure 6

Participants Least Busy Days of the Week



Note. This figure shows participant responses to the question, “During the work week, when are you typically least busy?”